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**"MEMORY AID"****Field of the Invention**

This invention relates to memory aids and/or encrypting or encoding and in particular to apparatus and methods whereby information such as series of numbers and/or letters or other indica or symbols can be recorded.

**Background of the Invention**

Many people are required to remember information such as series of numbers and/or letters or other indica for such purposes as bank or credit card, personal identification numbers (PIN), alarm activation/deactivation codes, door lock codes or other combinations. It is undesirable and in fact contrary to the terms of some contracts and agreements with banks for said information to be recorded in any manner associated with the debit or credit card to which they relate. Accordingly some users are tempted to utilise such easily remembered numbers as birthdays, simple sequences such as 1, 2, 3, 4 and other such combinations which are unfortunately also easy for persons attempting to gain unauthorised access to users accounts or for whatever reason, derive the sequence of characters to do so also.

It is an object of the present invention, in at least one of its preferred forms, to provide a:

memory aid, method of encrypting or encoding, or apparatus therefor which will go some way to overcoming the above mentioned disadvantages or which will at least provide the public with a useful choice.

**Disclosure of the Invention**

Accordingly in a first aspect the present invention may broadly be said to consist in a memory aid for data or symbols comprising:

- at least one means having an array of said symbols printed thereon;  
said data or symbols to be remembered or recorded being encoded or encrypted by means of one or more of the following methods:
  - i) being differentiated in colour or series of colours from any said remaining symbols;
  - ii) being differentiated by means of arrangement, pattern, surroundings or orientation of said symbols;
  - iii) the positioning of said symbols with respect to any said background (which may be blank) to said array of symbols.

Preferably said array of symbols is preprinted on a card or series of cards.

Preferably (each) said card is approximately credit card size.

Preferably said symbols comprise alpha-numeric characters or symbols.

Preferably said alpha-numeric characters or symbols comprise numerals.

Alternatively said symbols may comprise further indica such as Japanese kanji characters or any other language, or other indica or combinations of indica which the user desires or is required to remember or record.

5            Preferably said symbols and said array of symbols are assigned a random or pseudo random colour, and

             said user differentiates the symbols it is desired to remember by means of colouring said symbols to be remembered in a colour or sequence of colours which they can easily remember or derive.

10           Preferably said differentiation of colour of symbols to be remembered is achieved by the attachment of adhesive means such as stickers, which may be blank, onto said symbols.

             Alternatively said array of symbols is printed over or part of a picture or other coloured background, said user being able to alter said symbols in the array so that the  
15           sequence to be remembered is differentiated by the position of said symbols with respect to said picture or background.

             In another aspect the present invention may broadly be said to consist in a method of encoding or encrypting data to be recorded comprising the steps of:

20           providing means having thereon an array of said symbols to be remembered or recorded;

             providing means whereby a user can selectively differentiate a selected subset of said array thereby recording said data.

             Preferably said differentiation is achieved by the selective colouring of said symbols to be remembered or recorded data to be recorded or remembered.

25           Alternatively said data is differentiated by means of the arrangement, pattern, surroundings or orientation of said symbols to be remembered or data.

             Preferably said array is preprinted onto a card or series of cards.

             Preferably each said card is approximately credit card size.

             Preferably said array comprises alpha-numeric characters or symbols.

30           Preferably said alpha-numeric characters or symbols comprise numerals.

             Alternatively said symbols may comprise indica such as Japanese kanji or any other language characters or other indica or combinations of indica which the user desires or is required to remember or record.

35           Preferably said characters or symbols in said array are assigned a random or pseudo-random colour, and

             said user differentiates the symbols it is desired to record or remember by means

of colouring said symbols to be remembered in a colour or sequence of colours which can be easily remembered derived by the user.

Preferably said differentiation of colour of said symbols is achieved by attachment of adhesive means such as stickers to said symbols.

5       Alternatively said array may be printed over or part of a picture or coloured background and said user is able to alter said symbols in said array so that the sequence to be remembered is differentiated by the position of said data or symbols with respect to said picture or background.

10       Accordingly in yet another aspect the present invention may broadly be said to consist in apparatus for performing such a method.

In yet another aspect the present invention may broadly be said to consist in memory aid apparatus as herein described with reference to any one or more of the accompanying drawings.

15       In yet another aspect the present invention may broadly be said to consist in a method of encoding or encrypting data as herein described with reference to one or more of the accompanying drawings.

20       In yet another aspect the present invention may broadly be said to consist in a method of encoding or encrypting data as hereinbefore described wherein said data is recorded, encoded or encrypted on a series of means having an array of said symbols thereon, each said card having no, one, or more than one symbols or items of data recorded thereon.

#### **Brief Description of the Drawings**

The invention consists in the foregoing and also envisages constructions of which the following gives examples.

25       One preferred form of the present invention will now be described with reference to the accompanying drawings in which:

Figure 1 shows a device for remembering or recording data or a memory aid 1 according to at least a preferred form of the present invention; and

30       Figure 2 shows another view of the means for recording or remembering or encrypting data according to a form of the present invention 1 showing possible ways of encoding the said data.

#### **Best Mode for Carrying out the Invention**

35       Data of many forms is required to be remembered and later recalled. On many occasions the said data is of a nature such that it is highly undesirable for it to be recorded in a form which makes it obvious to others. However it is often an additional requirement that said data does not form an easily derivable sequence such as 1, 2, 3, 4, date of birth

or other easy to remember sequences. In the accompanying figures, the data or sequence of symbols to be remembered is given as 1, 2, 3, 4. Obviously, as aforementioned, such an easily derivable sequence is undesirable and also, as mentioned, may be contrary to the various contracts involved in the use of the data or sequence. The said sequence has been  
5 used merely as an example and, of course in use, a user would select their own data or sequence of symbols which would not be easily derivable. Such data includes personal identification numbers, PIN numbers, alarm activation or deactivation codes, building access codes and other sequences of symbols such as numerals or letters.

As said sequences are sometimes not able to be chosen by said user, they may  
10 prove difficult to remember however, as mentioned previously, it is undesirable to record the data in association with the, for example, debit or credit card to which it relates. In some instances the terms of contract with the bank or credit organisation preclude the recordal of a PIN number in association with the related debit or credit card.

The present invention consists in means to record and aid the memory of data such  
15 as sequences of symbols. Preferred forms of the present invention also provide means to encode said data such that it is recorded so it is not obvious to a casual observer.

As shown in the figures, one form of the present invention comprises a card 2 having an array of symbols 3 thereon. The said card 2 is preferably approximately credit card size although larger or smaller cards are of course possible. The card can be  
20 produced from any of the materials which will be known to those skilled in the art to which the invention relates. For example, cardboard, plastics material whether laminated or not or other suitable sheet, preferably rigid sheet, materials. In other forms of the invention the card 2 may have an array of symbols 3 on both sides. In other forms the array of symbols 2 may cover less than the full area of the card.

25 The array of symbols present on the card is preferably random or appears to be random. It should appear to a casual observer that none of the sequences of symbols stand out as being potentially encoded data.

The user of the device 1 takes the card 2 and encodes or encrypts their data to be recorded such as PIN numbers thereon.

30 Various forms of recordal are envisaged, for example, the user may place their sequence of symbols in a position which they can easily remember or an arrangement that they can easily remember, for example, arrangements labelled 4, 5, 6 or 7 in Figures 1 and 2. This is illustrated by Figure 2. In other preferred forms of the invention the sequence of symbols to be encoded, recorded or remembered is differentiated by its colour in  
35 relation to the surrounding array 3.

In one preferred form of the invention the user is supplied with the card 2 having

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thereon the array 3 and a series of symbols which are included in the array in the form of stickers. Said stickers being differentiated in terms of, for example, colour from those of the array 5. The user can then place the stickers onto the card 2 such that their sequence of symbols or data is recorded. For example, the user may choose to record their data as blue digit or any other colour which they can recall. The user may use a combination of arrangement and colours to record the data, for example, the data might be recorded as the closest four blue symbols to the left hand edge. Those skilled in the art to which the invention relates will realise that a variety of other arrangements might be used to record the data. For example, the data might be recorded around one or more corners of the array on the card 6. In other, especially preferred, forms of the present invention the data might be recorded on a number or series of cards. For example, the user might record the data or sequence of symbols by, for example, one or more of the following means. The user might record the symbols in sequence, for example, at the lower right hand corner of each of, for example, four cards. The user might record the sequence in a series of locations which advance from card to card. For example, the first symbol to be recorded might be the bottom-most left hand position, the next item to be recorded might occupy the position on the next card, one up from that location, and so forth. It will be appreciated that other sequences and means of recording the sequence of symbols or data on a series of cards is possible. For example, as aforementioned, the data might be recorded "around a corner" wherein said recordal occurs on a series of cards. It will be obvious that various other recordal techniques are possible.

It is preferably that the card 2 is supplied in such a form that there is no discernable arrangement of the colours of the array supplied 3.

In other preferred forms of the invention the user may indicate to a supplier their various data to be recorded such as PIN numbers and have the supplier print a preferably multi-coloured card 2 tailored to the users requirements. In this preferred form of the invention the card may be supplied of a laminated plastics material so that it is substantially hard wearing.

Those skilled in the art to which the invention relates will realise that users can record a number of series of symbols or data on a single card 2. It will also be appreciated that should the user require the recordal of further data or amend existing data, such amendment could be affected by the replacement or over placement of differentiated means such as coloured stickers.

This will be seen that the present invention in at least its preferred form provides a method of recording data to aid in the memory thereof and/or a method of encrypting or encoding data.

**CLAIMS:**

1. A memory aid to provide a user with means to better remember data or symbols comprising:
  - at least one means having an array of said data or symbols printed thereon;
  - 5 said data or symbols to be remembered or recorded being differentiated by means of one or more of the following methods:
    - i) being differentiated in colour or series of colours from any said remaining symbols;
    - ii) being differentiated by means of arrangement, pattern, surroundings or  
10 orientation of said symbols;
    - iii) the positioning of said symbols with respect to any said background (which may be blank) to said array of symbols.
2. A memory aid for data or symbols as claimed in claim 1 wherein said array of symbols is preprinted on a card or series of cards.
- 15 3. A memory aid for data or symbols as claimed in claim 1 or 2 wherein said card is approximately credit card size.
4. A memory aid for data or symbols as claimed in any one of claims 1 to 3 wherein said symbols comprise alpha-numeric characters or symbols.
5. A memory aid for data or symbols as claimed in any one of claims 1 to 4 wherein  
20 said alpha-numeric characters or symbols comprise numerals.
6. A memory aid for data or symbols as claimed in any one of claims 1 to 5 wherein said symbols may comprise further indica such as Japanese kanji characters or any other language, or other indica or combinations of indica which the user desires or is required to remember or record.
- 25 7. A memory aid for data or symbols as claimed in any one of claims 1 to 6 wherein said symbols and said array of symbols are assigned a random or pseudo random colour, and  
said user differentiates the symbols it is desired to remember by means of colouring said symbols to be remembered in a colour or sequence of colours which they can easily  
30 remember or derive.
8. A memory aid for data or symbols as claimed in claim 7 wherein said differentiation of colour of symbols to be remembered is achieved by the attachment of adhesive means such as stickers, which may be blank, onto said symbols.
9. A memory aid for data or symbols as claimed in claim 7 wherein said array of  
35 symbols is printed over or part of a picture or other coloured background, said user being able to alter said symbols in the array so that the sequence to be remembered is



differentiated by the position of said symbols with respect to said picture or background.

10. A method of encoding or encrypting data to be recorded comprising the steps of:  
providing means having thereon an array of said symbols to be remembered or recorded;
- 5 providing means whereby a user can selectively differentiate a selected subset of said array thereby recording said data:  
said user differentiating said selected subset.
11. A method of encoding or encrypting data to be recorded as claimed in claim 10 wherein said differentiation is achieved by the selective colouring of said symbols to be
- 10 remembered or recorded data to be recorded or remembered.
12. A method of encoding or encrypting data to be recorded as claimed in claim 10 wherein said data is differentiated by means of the arrangement, pattern, surroundings or orientation of said symbols to be remembered or data.
13. A method of encoding or encrypting data to be recorded as claimed in any one of
- 15 claims 10 to 12 wherein said array is preprinted onto a card or series of cards.
14. A method of encoding or encrypting data to be recorded as claimed in any one of claims 10 to 13 wherein each said card is approximately credit card size.
15. A method of encoding or encrypting data to be recorded as claimed in any one of claims 10 to 14 wherein said array comprises alpha-numeric characters or symbols.
- 20 16. A method of encoding or encrypting data to be recorded as claimed in claim 15 wherein said alpha-numeric characters or symbols comprise numerals.
17. A method of encoding or encrypting data to be recorded as claimed in any one of claims 10 to 14 wherein said symbols may comprise indica such as Japanese kanji or any other language characters or other indica or combinations of indica which the user desires
- 25 or is required to remember or record.
18. A method of encoding or encrypting data to be recorded as claimed in any one of claims 10 to 17 wherein said characters or symbols in said array are assigned a random or pseudo-random colour, and  
said user differentiates the symbols it is desired to record or remember by means
- 30 of colouring said symbols to be remembered in a colour or sequence of colours which can be easily remembered derived by the user.
19. A method of encoding or encrypting data to be recorded as claimed in any one of claims 10 to 18 wherein said differentiation of colour of said symbols is achieved by attachment of adhesive means such as stickers to said symbols.
- 35 20. A method of encoding or encrypting data to be recorded as claimed in any one of claims 10 to 19 wherein said array may be printed over or part of a picture or coloured

background and said user is able to alter said symbols in said array so that the sequence to be remembered is differentiated by the position of said data or symbols with respect to said picture or background.

21. Means to provide a user with the possibility to better remember data or symbols comprising:

at least one means having an array of said data or symbols printed thereon;

said data or symbols to be remembered or recorded being differentiated by means of one or more of the following methods:

i) being differentiated in colour or series of colours from any said remaining symbols;

ii) being differentiated by means of arrangement, pattern, surroundings or orientation of said symbols;

iii) the positioning of said symbols with respect to any said background (which may be blank) to said array of symbols.

22. Means to provide a user with the possibility to better remember data or symbols as claimed in claim 21 wherein said card is approximately credit card size.

23. Means to provide a user with the possibility to better remember data or symbols as claimed in claim 21 or 22 wherein said array of symbols is preprinted on a card or series of cards.

24. Means to provide a user with the possibility to better remember data or symbols as claimed in any one of claims 21 to 23 wherein said symbols comprise alpha-numeric characters or symbols.

25. Means to provide a user with the possibility to better remember data or symbols as claimed in any one of claims 21 to 24 wherein said alpha-numeric characters or symbols comprise numerals.

26. Means to provide a user with the possibility to better remember data or symbols as claimed in any one of claims 21 to 25 wherein said symbols may comprise further indica such as Japanese kanji characters or any other language, or other indica or combinations of indica which the user desires or is required to remember or record.

27. Means to provide a user with the possibility to better remember data or symbols as claimed in any one of claims 21 to 26 wherein said symbols and said array of symbols are assigned a random or pseudo random colour, and

said user differentiates the symbols it is desired to remember by means of colouring said symbols to be remembered in a colour or sequence of colours which they can easily remember or derive.

28. Means to provide a user with the possibility to better remember data or symbols

comprising as claimed in claim 27 wherein said differentiation of colour of symbols to be remembered is achieved by the attachment of adhesive means such as stickers, which may be blank, onto said symbols.

29. Means to provide a user with the possibility to better remember data or symbols as claimed in claim 28 wherein said array of symbols is printed over or part of a picture or other coloured background, said user being able to alter said symbols in the array so that the sequence to be remembered is differentiated by the position of said symbols with respect to said picture or background.

30. A method of encoding or encrypting data to be recorded comprising the steps of:  
providing means having thereon an array of said symbols to be remembered or recorded;

providing means whereby a user can selectively differentiate a selected subset of said array thereby recording said data:

said user differentiating said selected subset.

31. A method of encoding or encrypting data to be recorded as claimed in claim 30 wherein differentiation is achieved by the selective colouring of said symbols to be remembered or recorded data to be recorded or remembered.

32. A method of encoding or encrypting data to be recorded as claimed in claim 31 wherein said data is differentiated by means of the arrangement, pattern, surroundings or orientation of said symbols to be remembered or data.

33. A method of encoding or encrypting data to be recorded as claimed in any one of claims 30 to 32 wherein said array is preprinted onto a card or series of cards.

34. A method of encoding or encrypting data to be recorded as claimed in any one of claims 30 to 33 wherein each said card is approximately credit card size.

35. A method of encoding or encrypting data to be recorded as claimed in any one of claims 30 to 34 wherein said array comprises alpha-numeric characters or symbols.

36. A method of encoding or encrypting data to be recorded as claimed in any one of claims 30 to 35 wherein said alpha-numeric characters or symbols comprise numerals.

37. A method of encoding or encrypting data to be recorded as claimed in any one of claims 30 to 36 wherein said symbols may comprise indica such as Japanese kanji or any other language characters or other indica or combinations of indica which the user desires or is required to remember or record.

38. A method of encoding or encrypting data to be recorded as claimed in any one of claims 30 to 37 wherein said characters or symbols in said array are assigned a random or pseudo-random colour, and

said user differentiates the symbols it is desired to record or remember by means

of colouring said symbols to be remembered in a colour or sequence of colours which can be easily remembered derived by the user.

39. A method of encoding or encrypting data to be recorded as claimed in any one of claims 30 to 38 wherein said differentiation of colour of said symbols is achieved by  
5 attachment of adhesive means such as stickers to said symbols.

40. A method of encoding or encrypting data to be recorded as claimed in any one of claims 30 to 39 wherein said array may be printed over or part of a picture or coloured background and said user is able to alter said symbols in said array so that the sequence to be remembered is differentiated by the position of said data or symbols with respect to  
10 said picture or background.

41. Memory aid apparatus as herein described with reference to any one or more of the accompanying drawings.

42. A method of encoding or encrypting data as herein described with reference to one or more of the accompanying drawings.

15 43. A method of encoding or encrypting data as hereinbefore described wherein said data is recorded, encoded or encrypted on a series of means having an array of said symbols thereon, each said card having no, one, or more than one symbols or items of data recorded thereon.

1/1

0	1	1	8	3	7	3	2	9	0	8	3	4	4	5	4	4
6	2	2	0	5	2	5	1	1	7	3	9	6	7	6	8	3
6	7	3	9	8	0	7	6	0	2	2	0	3	7	5	6	7
5	5	8	4	4	1	6	1	8	6	4	5	9	1	1	5	8
7	6	9	3	6	9	8	7	9	3	1	2	8	4	3	9	2
6	4	4	5	7	2	9	8	5	2	1	1	0	6	2	6	1
2	5	6	5	6	1	8	7	9	5	0	9	1	5	2	5	0
7	4	9	8	2	2	1	4	8	6	0	2	6	9	8	7	0
3	2	0	0	1	3	0	6	4	7	3	8	9	6	7	9	9
4	9	7	1	9	9	5	3	8	3	4	5	8	3	3	8	5
8	1	3	1	0	0	2	4	6	5	4	7	0	1	2	4	8

FIG. 1

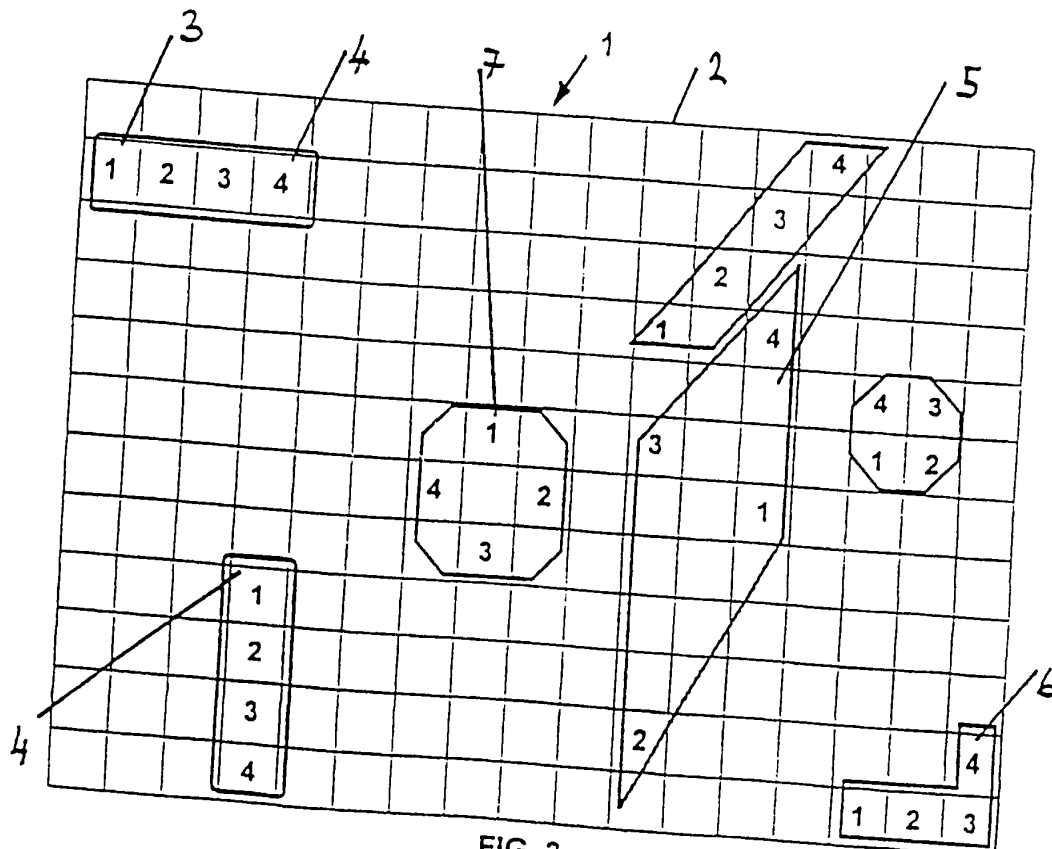


FIG. 2

SUBSTITUTE SHEET (RULE 26)